

FIGURE 6H

DIABETES

There is strong observational data the diabetes mellitus, both type I (insulin dependent) and type II (non-insulin dependent) are strong risk factors for the development of coronary artery disease. There is not yet convincing data that better glucose control will reduce the incidence of coronary disease or alter its manifestations of angina, heart attack or death. It is still highly recommended by The American Heart Association that glucose in diabetics be kept under tight control.

FIGURE 6I

OBESITY

The October 27th, 1999 issue of The Journal of American Heart Association clearly shows that increasing BMI (body mass index a measure of obesity) is related to increase risk of coronary artery disease and increased risk of death.

Obesity has a strong interaction with other major risk factors for coronary artery disease such as hypertension, glucose intolerance (diabetes mellitus), low HDL and elevated triglycerides. It is primarily through these associations that obesity mediates such a detrimental affect. Visceral or central abdominal obesity markedly increases this risk. This is measured by the waste circumference or waist to hip ration.

Studies have shown a marked increase in a number of obese individuals in our society. In fact, obesity is now considered to be a major public health problem in all regions of the United States.

Weight reduction to ideal body weight is recommended and this should under the direction of your healthcare professional.

CARDIOVASCULAR HEALTH AND PHYSICAL ACTIVITY

The National Institute of Health issued a consensus statement concerning physical activity as it relates to cardiovascular health. They set as a goal to accumulate at least 30 minutes of moderately intense physical activity on most, if not all days of the week.

What exactly does this mean? First of all, one needs to define physical activity as it relates to the concept of exercise. Physical activity is defined as "bodily movement produced by skeletal muscle that requires energy expenditure". Exercise on the other hand is "a planned, structured and repetitive bodily movement done to improve and maintain one or more components of physical fitness". These definitions are based on the NIH guidelines.

Therefore, to satisfy the NIH guidelines, Americans need to increase their level of physical activity to 30 minutes a day. This could take many forms such as brisk walking, cycling, yard work or home repair, all could be classified as physical activity. To meet NIH guidelines this activity should be done with moderate exertion. Climbing stairs rather than taking the elevator or walking briskly from a parked car in a parking lot vs. using valet parking and carry items rather than using a cart, all would also qualify.

Exercise usually involves a more structured program of physical activity. These programs likewise would qualify according to NIH guidelines, if done for 30 minutes at moderate intensity.

What specifically are the advantages of physical activity as they relate to cardiovascular health?

1. People that are more physically active have better indices of obesity.
2. HDL cholesterol levels appear to be higher in people who are physically active.
3. Diabetes control usually is better in more physically active people. High blood pressure is also easier to control in the active person.

What are the anticipated benefits of physical activity in people with cardiovascular disease?

Studies show that people with known coronary artery disease tend to show a reduction in heart attack rates, reduction in death rates and increase in exercise capacity. These benefits may also hold true for people that do not have known coronary artery disease.

Other points that need to be considered:

1. A structured exercise program is not necessarily required to gain the benefit of physical activity, however regular sustained activity of moderate intensity is required.
2. This physical activity must be done on a regular, frequent basis in order to maintain the benefits.
3. People with cardiovascular disease should absolutely be under the care of a physician before they start a program of increased physical activity. There are many programs in most communities to accomplish this. People in this category should be urged to talk to their physicians. Below are a number of activities and an index of their caloric expenditure for an average 150lb person according to The American Heart Association.